

USSN 10/699,481

PATENT

-12-

In the Abstract

A replacement Abstract is set forth below:

[0120] ~~One embodiment of the~~The acoustically-coupled transformer includes ~~a stacked bulk acoustic resonator (SBAR) having a stacked pair of film bulk acoustic resonators (FBARs with an acoustic decoupler between them. Each FBAR has opposed planar electrodes with piezoelectric material between them. The transformer additionally has first terminals electrically connected to the electrodes of one FBAR and second terminals electrically connected to the electrodes of the other FBAR. Another embodiment includes first and second stacked bulk acoustic resonators (SBARs), each having a stacked pair of film bulk acoustic resonators (FBARs) with an acoustic decoupler between them. In one embodiment, the acoustic decoupler comprises a layer of decoupling material having a nominal thickness equal to an odd integral multiple of one quarter of the wavelength of an acoustic wave having a frequency equal to the transformer's center frequency. In another embodiment, the acoustic decoupler comprises a Bragg stack. Each FBAR has opposed planar electrodes with piezoelectric material between them. The transformer additionally has first terminals, second terminals, as described above, a first electrical circuit connecting one FBARs of the first SBAR to one FBAR of the second SBAR and the first terminals, and a second electrical circuit connecting the other FBAR of the first SBAR to the other FBAR of the second SBARSBAR and the second terminals. The transformer provides impedance transformation, can linking single ended circuitry with balanced circuitry or vice versa and electrically isolates primary and secondary. Some embodiments are additionally electrically balanced.~~